A report is presented on a questionnaire survey of drug use among high school students in Portland and Multnomah County, Oregon. The survey covered marijuana, amphetamines, inhalants, sedatives and tranquilizers, cocaine, hallucinogens, narcotics, alcohol, tobacco, and a variety of other substances. Findings are reported and discussed.

SURVEY OF ADOLESCENT DRUG USE

I—SEX AND GRADE DISTRIBUTION

Kit G. Johnson, M.S., M.D., M.P.H.; John H. Donnelly, M.D., M.P.H.; Robert Scheble, B.S.: Richard L. Wine, M.S.W.; and Morris Weitman, Ph.D.

Introduction

IN the fall and winter of 1967–68 evidence began to accrue that Portland, Oregon and the surrounding communities were experiencing an epidemic of adolescent drug misuse. Although the consensus of the community's individuals and institutions sensitive to adolescent practices was in agreement that the dramatic change in drug usage as reflected in Figure 1 was real, they did not agree about the extent of drug misuse among the adolescents. This lack of hard data prompted the Multnomah County Division of Public Health to conduct a survey among samples of the adolescents attending all of the public high schools in the city of Portland and metropolitan Multnomah County with a questionnaire about their drug use. The purposes were, first, to define the extent of drug use among this population as a basis for program planning by the Health Division and the community and, second, to enhance the basic understanding of the distribution of and the dynamics of drug use among adolescents.

This paper presents the data derived from the survey concerning the sex and grade distribution of drug use. Subsequent papers[2,3] will present more detailed analyses of the dynamics of drug use among adolescents. Table 1 presents some of the community's characteristics.

Method

A systematic 10 per cent sample drawn from the rosters of the community's 18 public high schools produced the names of 3,476 adolescents for the survey. On the day of the survey the selected adolescents were excused from their regular classes and requested to report to an assembly room for a project with the County Health Department. After they were assembled, the nature of the study was carefully discussed with them, their own questions were answered, they were reassured of their right of non-cooperation in any manner they chose and guaranteed full anonymity.

The questions concerned the adolescents' use of 12 categories of drugs: marijuana, amphetamines, inhalants, sedatives and tranquilizers, cocaine, hallucinogens, narcotics, barbiturates, alcohol, tobacco, headache remedies, cold

remedies, and antihistamines. The surveyor (K.G.J.) simutaneously read aloud and projected the synonyms, instructions and questions relative to each drug category onto a screen and freely discussed them with the subjects before proceeding to the next drug category. They recorded their answers on paper containing only numbered spaces to be blackened-in for the appropriate responses.

An analysis of the participation and loss rates for the sample groups from 15 of the schools which had sufficient valid information is presented in Table 2. The group "Present in School but

Table 1—Multnomah County

Demographic and socio-economic characteristics
(1960 data unless otherwise noted)

General[4,6]	1960	1968
Total population	522,813	555,700
Portland part	372,298	377,800
Balance of county	150,515	177,900

Population rank—57th of all counties in U.S.
Population density—1237 per sq. mile
Per cent urban—96.4%
Per cent Negro—3.1%

Education[5]
(Age 25+)
7 years or less 11.7%
Median school years completed—12.0
4 or more years college—9.4

Age[5]
19 and under—34.8%
Median age—33.9 years
65 and older—12.3%

Family Income[4]
Median income of families—$6,378
Per cent of families with income under $3,000—14.4%
Per cent of families with income $10,000 and over—16.6%
Public assistance recipients (1964)—22,757 (4.2% of population)

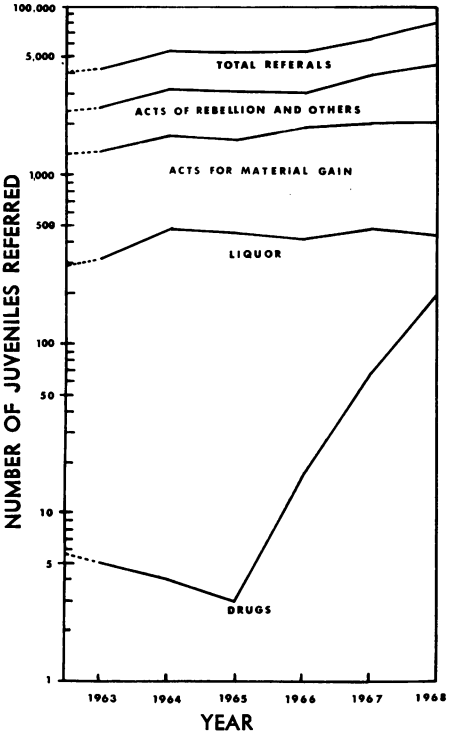
Employment[6] 38% of total population	Number	Per cent of Employed
Manufacturing	39,988	19.8
Retail trade	34,517	17.0
Professional services	27,817	13.7
Transportation, communication & utilities	21,369	10.5
All other	79,134	39.0
Total employed	202,725	100.0

Housing[4,5]
Per cent owner occupied housing units—66.2%
Median value of owner occupied housing units—$11,000

Condition of housing	Sound	85.7%
	Deteriorating	11.1%
	Dilapidated	3.2%

Footnotes—see References.

Figure 1—Number of juveniles referred to Multnomah County Juvenile Court for drug and other offenses



"Acts of rebellion and others" includes: truancy, running away, being ungovernable, sex offense, injury to person, act of carelessness or mischief, curfew, other delinquent behavior.

"Acts for material gain" includes: automobile theft, burglary or unlawful entry, robbery, other theft.

Failed to Report for Survey" does not necessarily represent a non-cooperative group. There were many other reasons some adolescents did not participate, such as: failure of communications, scheduled tests or field trips, and other "high priority" conflicts.

Two thousand seven hundred and seventy-seven (2,777) answer sheets were obtained from all 18 schools. Twenty-five of these were discarded because 4 or more questions had not been answered, which left 2,752, or 79.2 per cent of the 3,476 selected adolescents as participants. Our study group can thus be defined as: (1) a group of adolescents registered in public high schools, (2) who attended school on the day of the survey, (3) who elected to respond to a request to leave a regularly scheduled class to participate in a project sponsored by the Health Division and, (4) who voluntarily gave anonymous statements regarding their use of and attitudes toward drugs. Quantitatively they were about 7 per cent of their age group and 8 per cent of the public high school students in Multnomah County. Their sex and grade distributions are presented in Table 3.

Results

The survey technique and questionnaire format presented for marijuana were also used for all of the other drugs, unless otherwise noted.

Table 2—Drug survey participation by adolescents from 15 high schools with valid relevant information

	Number	Per cent
Eligible sample	2,624	100.0
Absent from school	241	9.2
Present in school but failed to report for survey	160	6.1
Present in survey group but failed to return questionnaire	28	1.1
Participated fully in survey	2,195	83.6

Table 3—Sex and grade distributions for all survey participants

	Boys	Girls	Both
Freshmen	365	378	743
Sophomores	363	365	728
Juniors	329	299	628
Seniors	285	299	584
Totals	1,342	1,341	2,683*

* An additional 69 adolescents failed to identify either their sex and/or grade.

Marijuana

There was almost no confusion among the subjects as to the identity of this drug (Appendix 1). They were very candid while discussing marijuana and were well-informed about it. However, there are reported instances in the community where oregano, dried weeds, etc., had been purchased and consumed by adolescents who believed they were getting marijuana; these counterfeits usually produced the desired psychogenic effects in their consumers.

The subjects were asked to indicate if they had: (1) Never used marijuana, (2) used it 1–5 times, (3) used it 6–15 times, or (4) used it over 15 times. A "time" was defined as one exposure within a relatively circumscribed social-time-place situation: e.g., "Three reefers on a weekend away from home is one time, or one puff at lunch break is one time."

Table 4 indicates that the range of self-reported marijuana use is from 3.4 per cent for the freshmen girls to 24.9 per cent of the senior boys.

Amphetamines

After the synonyms (Appendix 2) were read and the misunderstandings were clarified the students were told to count all of the times they had used these drugs except under a physician's order. Even if the drugs were taken as anorexics the times were to be counted, unless a physician was consulted. The rest of the protocol was similar to that of marijuana. Table 5 presents the data for the adolescents' responses regarding amphetamines.

Inhalants

The principal inhalants which adolescents have used are the volatile solvents of airplane glue. Other inhalants are listed in Appendix 3.

Table 6 reveals that contrary to the other drugs the percentage of adolescents

Table 4—Percentage adolescents' responses to questions concerning *marijuana*

	Boys			
Response	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	0.8	1.1	0.3	2.8
% never used	91.6	84.3	79.6	72.3
% ever used	7.6	14.6	20.1	24.9
% used 1–5 times	3.0	10.2	8.8	13.3
% used 6–15 times	3.0	1.4	5.8	4.9
% used 16+ times	1.6	3.0	5.5	6.7
	Girls			
Response	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	0.3	0.8	1.3	0.0
% never used	96.3	90.2	89.4	87.9
% ever used	3.4	9.0	9.3	12.1
% used 1–5 times	2.6	3.0	4.3	7.4
% used 6–15 times	0.3	2.7	1.0	1.7
% used 16+ times	0.5	3.3	4.0	3.0

Table 5—Percentage adolescents' responses to questions concerning *amphetamines*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	0.8	1.9	0.9	0.7
% never used	89.4	86.8	85.2	85.3
% ever used	9.8	11.3	13.9	14.0
% used 1–5 times	6.6	6.6	8.2	9.1
% used 6–15 times	1.6	3.1	3.6	2.1
% used 16+ times	1.6	1.6	2.1	2.8

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	0.3	1.6	1.3	1.3
% never used	92.3	86.1	84.6	85.6
% ever used	7.4	12.3	14.1	13.1
% used 1–5 times	5.8	7.4	11.4	8.4
% used 6–15 times	1.1	2.2	1.0	3.0
% used 16+ times	0.5	2.7	1.7	1.7

Table 6—Percentage adolescents' responses to questions concerning *inhalants*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	0.3	0.3	0.0	0.7
% never used	85.0	81.0	86.4	87.0
% ever used	14.7	18.7	13.6	12.3
% used 1–5 times	9.0	12.1	11.2	8.0
% used 6–15 times	1.6	2.5	0.9	2.5
% used 16+ times	4.1	4.1	1.5	1.8

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	1.0	0.3	0.3	0.7
% never used	88.5	89.5	92.3	97.3
% ever used	10.5	10.2	7.4	2.0
% used 1–5 times	8.2	8.3	6.7	2.0
% used 6–15 times	1.3	1.4	0.0	0.0
% used 16+ times	1.0	0.5	0.7	0.0

who stated they have used inhalants decreases with increasing age. This unusual trend is consistent with the clinically observed pattern of glue sniffing, which is most commonly encountered among 10–14 year old boys and often disdained by older adolescents. The question is why is there a declining prevalence in response to the questions concerning *all* past use? The most likely reasons are simple memory extinction after 3–6 years, reinforced by a "more mature" attitude toward "kid stuff," or a recent increase in the use of the inhalants among younger adolescents.

Sedatives and Tranquilizers

These drugs (Appendix 4) include the most commonly prescribed medicinals and some of the most intensively advertised and dispensed proprietary drugs. They are very readily available to adolescent use.

Table 7 indicates the reported nonmedically supervised use of tranquilizers and sedatives is highest among junior girls (34.1%). This reported use may have been for "quasi-medical" reasons, where the drug was taken to relieve tension, menstrual anxieties, etc., but without a doctor's permission.

Cocaine

Despite some time spent discussing the synonyms (Appendix 5) and definition, the similiarity of the names "cocaine" and "codeine" introduced a source of "honest error." Another source of "honest error" was the reported introduction of various combinations of drugs of placebos as "cocaine" to the adolescent community just before the survey was initiated. In general, the level of reported use of cocaine is very low (Table 8).

Hallucinogens

The hallucinogens (Appendix 6) have become synonymous with a way of life

Table 7—Percentage adolescents' responses to questions concerning *sedatives and tranquilizers*

	Boys			
Response	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	0.3	1.6	2.1	1.8
% never used	81.9	79.3	77.6	75.7
% ever used	17.8	19.1	20.3	22.5
% used 1–5 times	14.0	15.2	17.0	16.8
% used 6–15 times	2.7	2.5	2.4	3.2
% used 16+ times	1.1	1.4	0.9	2.5
	Girls			
Response	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	0.8	0.8	1.7	0.3
% never used	83.1	74.0	64.2	70.6
% ever used	16.1	25.2	34.1	29.1
% used 1–5 times	12.5	20.0	26.8	21.4
% used 6–15 times	1.8	2.7	5.3	3.7
% used 16+ times	1.8	2.5	2.0	4.0

Table 8—Percentage adolescents' responses to questions concerning *cocaine*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	0.8	0.3	0.6	1.4
% never used	96.6	97.3	97.6	94.7
% ever used	2.6	2.4	1.8	3.9
% used 1–5 times	1.6	1.6	1.5	2.8
% used 6–15 times	0.5	0.0	0.0	0.7
% used 16+ times	0.5	0.8	0.3	0.4

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	0.5	0.3	0.0	0.7
% never used	98.9	97.8	99.0	98.6
% ever used	0.6	1.9	1.0	0.7
% used 1–5 times	0.3	1.4	1.0	0.7
% used 6–15 times	0.0	0.5	0.0	0.0
% used 16+ times	0.3	0.0	0.0	0.0

which is as controversial and/or attractive to the adolescent as the drugs, or vice versa. STP had reportedly made the local scene, but LSD was far more easily obtained. Table 9 discloses an absence of the usual trend of reported increased drug use with increased age. This may be due to one or a combination of several things. First, there had been considerable adverse publicity concerning the side effects of these drugs just prior to the survey. Second, the drugs were relatively recently introduced locally; therefore, the older age groups had not had a longer exposure time than the younger age groups. Also the adolescents may not have had time to establish these drugs firmly in a social niche as to who is going to be identified with them; the "in-crowd" or the "out-crowd?"

Narcotics

The medical use of the word "narcotics," restricted to the opium type drugs, was discussed with the adolescents (Appendix 7). They were told to count all of the times they had used narcotics without medical supervision, even for parentally accepted reasons such as severe menstrual cramps; however, they were not to count the times they had used cough syrup with codeine as an anti-tussive. It is noteworthy that in Table 10 less than 10 per cent of the adolescents who report using narcotics have used them over 15 times.

Barbiturates

Were familiar to the adolescents and many trade names and synonyms not listed (Appendix 8) were mentioned. Again they were asked to report all use of these drugs without medical supervision. As usual there is a small but steady rise in reported use of barbiturates with advancing grade for both boys and girls except for senior girls who report less use than sophomore and junior girls (Table 11).

Table 9—Percentage adolescents' responses to questions concerning *hallucinogens*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	1.4	0.8	0.9	0.7
% never used	93.7	92.1	90.3	92.2
% ever used	4.9	7.1	8.8	7.1
% used 1–5 times	3.8	5.5	5.2	4.6
% used 6–15 times	0.8	0.0	1.5	1.8
% used 16+ times	0.3	1.6	2.1	0.7

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	0.0	0.3	0.3	0.3
% never used	97.9	94.1	96.0	97.7
% ever used	2.1	5.6	3.7	2.0
% used 1–5 times	1.3	4.6	3.0	1.0
% used 6–15 times	0.0	0.5	0.7	0.7
% used 16+ times	0.8	0.5	0.0	0.3

Table 10—Percentage adolescents' responses to questions concerning *narcotics*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	1.4	1.4	2.1	2.5
% never used	90.9	88.9	89.1	88.0
% ever used	7.7	9.7	8.8	9.5
% used 1–5 times	5.5	6.9	6.7	5.6
% used 6–15 times	1.9	1.4	1.2	2.5
% used 16+ times	0.3	1.4	0.9	1.4

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	0.5	1.9	1.3	0.3
% never used	92.4	88.2	88.1	93.4
% ever used	7.1	9.9	10.6	6.3
% used 1–5 times	5.8	7.4	9.0	5.0
% used 6–15 times	0.5	1.4	1.3	1.0
% used 16+ times	0.8	1.1	0.3	0.3

Table 11—Percentage adolescents' responses to questions concerning *barbiturates*

Response	Boys Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	2.2	1.4	2.7	2.1
% never used	92.1	90.1	89.4	88.4
% ever used	5.7	8.5	7.9	9.5
% used 1–5 times	4.4	6.3	6.1	6.0
% used 6–15 times	0.5	1.4	1.2	1.4
% used 16+ times	0.8	0.8	0.6	2.1

Response	Girls Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	1.6	1.4	2.0	0.7
% never used	95.0	89.6	86.6	91.6
% ever used	3.4	9.0	11.4	7.7
% used 1–5 times	2.9	6.8	9.4	5.0
% used 6–15 times	0.0	1.1	1.0	2.0
% used 16+ times	0.5	1.1	1.0	0.7

Alcohol

Oregon has strictly enforced laws against the use of alcoholic beverages (Appendix 9) by minors; however, the skewness of the data of Table 12 toward the maximum reportable use indicates that the questionnaire did not have sufficient categories at the high consumption end of the range to measure with adequate discrimination the extent of alcohol consumption among adolescents. A more sensitive distribution of alcohol use could have been obtained by putting the question as follows: (1) Never used alcohol, (2) used alcohol less than 1/month, (3) used alcohol about 1–3 times/month, (4) used alcohol about 1–3 times/week, (5) used alcohol 4 or more times/week (daily).

Tobacco

The sale of tobacco (Appendix 10) to minors is illegal in Oregon. The questions were structured on a smoking rate basis which discloses their current practices in Table 13. Sixteen per cent of freshmen boys report smoking daily, and the percentage is doubled by senior boys.

In the fall of 1958, Horn, Courts, Taylor and Solomon[7] conducted a questionnaire survey among 21,980 adolescents attending public and Catholic high schools in the city of Portland and metropolitan Multnomah and Clackamas Counties. The present study is not drawn from the identical population frame, but it is drawn from the largest constituents of their frame, the public high schools of Portland and metropolitan Multnomah County. Therefore, the comparison of similar data from each survey in Table 14 has some validity. Inspection of this table discloses an increase in the reported percentage of daily smokers after a ten-year interval, but also an increase in the percentage of boys who report they have never smoked.

Table 12—Percentage adolescents' responses to questions concerning *alcohol*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	2.7	1.9	3.6	1.1
% never used	16.2	8.5	7.9	6.3
% ever used	81.1	89.6	88.5	92.6
% used 1–5 times	25.5	14.9	17.6	15.4
% used 6–15 times	18.6	23.7	17.6	13.7
% used 16+ times	37.0	51.0	53.3	63.5

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	1.8	0.5	1.7	1.3
% never used	19.0	16.7	11.7	10.7
% ever used	79.2	82.8	86.6	88.0
% used 1–5 times	35.0	31.3	29.1	26.1
% used 6–15 times	18.0	21.1	18.7	25.1
% used 16+ times	26.2	30.4	38.8	36.8

Table 13—Percentage adolescents' responses to questions concerning *tobacco*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	3.8	4.1	4.0	2.1
% never used	37.4	30.9	29.4	23.2
% ever used	58.8	65.0	66.6	74.7
% less 1 time/mo.	27.7	25.3	22.2	26.3
% 1–2 times/mo.	8.3	8.8	6.7	6.0
% 1–2 times/wk.	6.6	8.3	6.1	9.8
% daily	16.2	22.6	31.6	32.6

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	2.9	3.0	3.0	1.3
% never used	55.1	47.7	39.1	38.4
% ever used	42.0	49.3	57.9	60.3
% less 1 time/mo.	20.6	25.2	29.1	25.8
% 1–2 times/mo.	6.9	7.1	7.4	8.7
% 1–2 times/wk.	5.0	6.0	6.4	4.7
% daily	9.5	11.0	15.0	21.1

Table 14—Comparison of the per cent of adolescents reporting tobacco use in survey questionnaires conducted 10 years apart

Responses	Per cent of adolescents							
	Boys				Girls			
	FR	SO	JR	SE	FR	SO	JR	SE
Never smoked:								
Horn et al.—1958*	30.8	25.4	22.9	19.0	58.9	48.3	43.5	31.7
Present survey—1968	37.5	30.8	29.5	23.2	55.0	47.7	39.1	38.4
Change	+6.7	+5.4	+6.6	+4.2	−3.9	−0.6	−4.4	+6.7
Occasional smoking:								
Horn et al.—1958*	54.7	49.4	46.1	45.5	36.4	41.2	40.3	42.0
Present survey—1968	39.7	38.3	32.8	34.4	30.5	35.3	39.5	35.8
Change	−15.0	−11.1	−13.3	−11.1	−5.9	−5.9	−0.8	−6.2
Weekly smoking:								
Horn et al.—1958*	4.0	6.2	5.4	5.6	1.4	3.0	4.5	6.4
Present survey—1968	6.6	8.3	6.1	9.8	5.0	6.0	6.4	4.7
Change	+2.6	+2.1	+0.7	+4.2	+3.6	+3.0	+1.9	−1.7
Daily smoking:								
Horn et al.—1958*	10.5	19.0	25.6	29.9	3.3	7.5	11.7	19.9
Present survey—1968	16.2	22.6	31.6	32.6	9.5	11.0	15.0	21.1
Change	+5.7	+3.6	+6.0	+2.7	+6.2	+3.5	+3.3	+1.2

* Horn, D.; Courts, F. A.; Taylor, R. M.; and Solomon, E. S. Cigarette Smoking Among High School Students, A.J.P.H., 49:1497, 1959.[8]

Headache Remedies

Headache remedies (Appendix 11) were included primarily to determine if a correlation exists between the use of these easily obtainable, socially acceptable and intensively advertised drugs and the use of other drugs. All non-medically supervised use of the drugs was to be counted. A "time" was defined as using a headache remedy either once or for the duration of treatment of a medical problem (if unsupervised). Thus, aspirin taken for three days for "flu" would be one time. The data of Table 15 indicates the form of the question was inappropriately limiting, as about 50 per cent of the adolescents responded at the maximum level. These questions should have been asked in more appropriate rate relationships as proposed for alcohol.

Antihistamines and Cold Remedies

These drugs (Appendix 12) were included for the same reasons as headache remedies, and the same protocol applies. Table 16 indicates that although the question format was satisfactory, a more appropriate amount-to-time sequence of questions could be designed.

Sex and Grade

An inspection of Figure 2 reveals that the ratio of boys to girls reported

use of drugs is markedly greater for cocaine, hallucinogens, marijuana, inhalants, tobacco (daily) and alcohol. There is relatively little difference between the sexes in reported use of amphetamines, narcotics, barbiturates and cold remedies and antihistamines. Girls reported somewhat greater use of headache remedies and sedatives and tranquilizers. These latter drugs along with antihistamines are commonly considered as acceptable by the general public for use in quasi-medical home treatment without a physician's approval.

As shown in Figure 2 there are five drugs for which the trends of reported use with advancing grade in school do not differ for boys and girls. Both boys and girls report marked increase in the use of tobacco, marijuana and alcohol with advancing grade in school; both report some increase in the use of amphetamines and no particular change in the use of cocaine with advancing grade in school. For three of the drugs (hallucinogens, barbiturates and narcotics) there is an interesting difference in reported use between boys and girls by grade; boys report essentially no change in use with advancing grade whereas girls report greater use of these drugs in their sophomore and junior years and less in their freshman and senior years. On the other hand, girls show no reported change of use by grade of two drugs (headache remedies, and cold remedies and antihistamines) while the boys show a somewhat increased use of them with advancing grade. For two other drugs (sedatives and tranquilizers and inhalants) boys report no difference in their use by grade but the girls report marked changes. With advancing grade the girls report a sharp increase

Table 15—Percentage adolescents' responses to questions concerning *headache remedies*

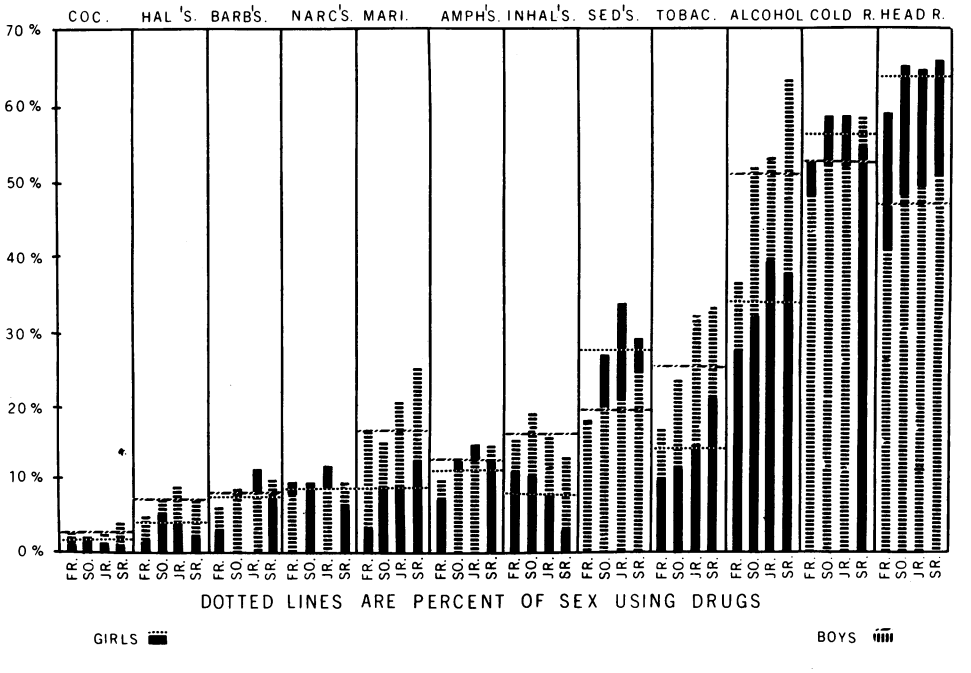
	Boys			
Response	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	2.2	1.9	2.1	1.1
% never used	5.5	5.0	6.1	5.3
% ever used	92.3	93.1	91.8	93.6
% less 1 time/yr.	12.3	7.2	6.7	6.3
% 1–3 times/yr.	24.4	18.7	17.9	16.8
% 4–7 times/yr.	15.1	19.3	18.2	20.4
% 8+ times/yr.	40.5	47.9	49.0	50.1
	Girls			
Response	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	2.9	1.1	1.3	2.0
% never used	3.4	3.3	2.7	4.3
% ever used	93.7	95.6	96.0	93.7
% less 1 time/yr.	6.4	3.3	3.0	1.7
% 1–3 times/yr.	13.5	14.8	10.7	11.7
% 4–7 times/yr.	15.1	13.2	18.0	15.0
% 8+ times/yr.	58.7	64.3	64.3	65.3

Table 16—Percentage adolescents' responses to questions concerning *antihistamines*

Response	Boys			
	Fresh (N=365)	Soph (N=363)	Jr (N=329)	Sen (N=285)
% no response	3.0	5.0	6.7	2.5
% never used	29.1	25.3	25.5	23.2
% ever used	67.9	69.7	67.8	74.3
% less 1 time/yr.	20.8	18.7	17.0	15.4
% 1–3 times/yr.	24.7	32.0	29.9	37.5
% 4–7 times/yr.	11.2	8.8	11.8	12.3
% 8+ times/yr.	11.2	10.2	9.1	9.1

Response	Girls			
	Fresh (N=378)	Soph (N=365)	Jr (N=299)	Sen (N=299)
% no response	2.9	1.6	4.0	2.3
% never used	28.8	26.1	20.0	25.5
% ever used	68.3	72.3	76.0	72.2
% less 1 time/yr.	16.5	14.2	18.4	17.7
% 1–3 times/yr.	28.8	34.9	38.6	38.5
% 4–7 times/yr.	12.7	11.2	13.0	12.0
% 8+ times/yr.	10.3	12.0	6.0	4.0

Figure 2—Per cent of adolescents using drugs by sex and by grade



in the use of sedatives and tranquilizers and a sharp decrease in the use of inhalants.

Summary

During the spring of 1968, a survey questionnaire was administered to a sample of the adolescents attending the Public High Schools of Portland and metropolitan Multnomah County, Oregon. The questions concerned the 2,752 adolescents' use of marijuana, amphetamines, inhalants, sedatives and tranquilizers, cocaine, hallucinogens, narcotics, barbiturates, alcohol, tobacco, headache remedies, and cold remedies and antihistamines.

Presentation of the data by sex and grade distribution discloses that more boys than girls report using each of the drugs except barbiturates, antihistamines, sedatives and tranquilizers, and headache remedies. The adolescents usually reported an association of increased drug use with increased age except for the senior girls, who frequently reported less use of the drugs than was consistent with the trends reported by the other classes.

REFERENCES

1. Multnomah County Juvenile Court and Donald E. Long Home: Multnomah County Juvenile Department Annual Report 1968, Portland, 1969.
2. Johnson, et al. Survey of Adolescent Drug Use II., Social Factors.
3. Weitman, et al. Survey of Adolescent Drug Use III., Correlations.
4. County and City Data Book 1967, U. S. Bureau of the Census.
5. Population and Housing, Portland Metropolitan Planning Commission, June 1963.
6. Population and Housing 1969, Multnomah County Planning Commission.
7. Horn, D.; Courts, F. A.; Taylor, R. M.; and Solomon, E. S. Cigarette Smoking Among High School Students, A.J.P.H. 49: 1497, 1959.
8. Alcohol and Drug Section, Mental Health Division, Oregon State Board of Control. Slang Terms in World of Drugs, 2nd. ed., Portland, 1968.

APPENDIX

Many synonyms in this appendix were gleaned from "Slang Terms in World of Drugs."[8]

1. Marijuana: also known as sticks, gage, grass, griefo, hay, hemp, jive, hashish, joints, locoweed, manicure, Mary Jane, mezz, mor a grifa, mutah, pot, rope, reefer, Texas tea weed, lid, key, and matchbox.
2. Amphetamines: also known as cartwheels, coast-to-coasts, L.A. turnabouts, browns, bombido, bottles, co-pilots, dexies, bennies, Dexadrine, diet pills, footballs, greenies, hearts, Benzedrine, lid poppers, oranges, weight reduction pills, peaches, rosses, speed, truckdrivers, wake-ups, whites, Eskatrol, Methamphetamine, and pep-pills.
3. Inhalants: include airplane glue, Lepage's, gasoline, finger nail polish remover, cocktail glass chiller, lighter fluid, ether, paint thinner, cleaning fluids, solvents, moth balls, and rubbing alcohol.
4. Sedatives and tranquilizers have too many names to list, but some of them are chloral hydrate, Micky Finn, Compoz, Noctec, Somulex, Doriden, Thorazine, Mellaril, Librium, Stellazine, Vistaril, nerve pills, sleep, Equanil, and Miltown.
5. Cocaine: also known as Bernice, Coke, Corine, flake, gold dust, hard stuff, snow, speed ball, stardust.
6. Hallucinogens: also known as L.S.D., 25, the beast, the ghost, the chief, the hawk, lysergic acid diethylamide, DMT., acid, nutmeg, dimethyltryptamine, vodka acid, S.T.P., peyote, morning glory seeds, sugar cubes, and cubes.
7. Narcotics: also known as codeine, morphine, heroin, opium, crystal, paregoric, bindle, blanks, blue velvet, cotics, deck, dollies, Demerol, dolophine, fix, goods, H., Harry, locus, hard stuff, horse, joy, powder, junk, Lipton Tea, Miss Emma, Mojo, paper, speed ball, dynamite, P.G., P.O., scat, stuff, sugar, turkey, and white stuff.
8. Barbiturates: also known as Phenobarbital, Amobarbital, barbs, blue devils, amytal, candy, double trouble, blue birds, tuinal, goofballs, blue heavens, red and blues, Nembutal, peanuts, pinks, Seconal, rainbows, red birds, red devils, seggy, tooies, yellow-jackets, and dolls.
9. Alcohol: is found in beer, wine, whisky, gin, scotch, booze, rum, vodka, cocktails, drinks, hard cider, bourbon, ale, malt liquor, and brandy.
10. Tobacco: commonly used as cigarettes, cigars, snuff (snoose), pipes, and "chawin-baccy."
11. Headache remedies: are too many to list,

but some of the more common ones are Aspirin, Empirin, A.P.C., P.A.C., Excedrin, Bufferin, Alka-Seltzer, Anacin, and Bromo Seltzer.

12. Cold remedies and antihistamines: are too many to list, but some of the more common ones are Contact, Dristan, Anahist, Orinade, Asthmador, and Sinutab.

Dr. Johnson is Former Resident in Public Health, Dr. Donnelly is Director, Mr. Scheble is Statistician, and Mr. Wine is Chief Social Worker, Multnomah County Oregon, 12240 N.E. Glisan St., Portland, Ore. 97230. Dr. Weitman is Research Consultant and Professor of Psychology, Portland State University.
This paper was submitted for publication in November, 1969.

Interested in Single Reprints of Journal Articles?

The American Public Health Association receives many requests from individuals for single reprints of articles published in the American Journal of Public Health. It is impossible for the Association to fill these requests since we do not have the staff nor facilities necessary to perform such a service for our readers. It is our policy to refer the person requesting such a reprint to the senior author of the manuscript, whose address is given at the conclusion of the printed article. Authors of material published in the Journal routinely order bulk quantities of their articles so they can make them available to interested individuals.